Improvements to the Spatial-Domain Lapped Transform
in Digital Media Compression

Abstract

5   An improved spatial-domain lapped transform (SDLT) in a digital media codec

uses mismatched relaxed pre-processing filter and aggressive post-processing filter to

minimize range expansion while increasing the smoothing effect to reduce blocking

artifacts of block transform-based coding. The improved SDLT can further include a

range-limiting or clipping operation to limit the range expansion from the pre-processing

10   filter. Additionally, the SDLT can selectively switch pairs of pre- and post-processing

filters based on a quality metric.